

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: \_\_\_\_\_ Examiner #: \_\_\_\_\_ Date: \_\_\_\_\_  
 Art Unit: \_\_\_\_\_ Phone Number 30 \_\_\_\_\_ Serial Number: \_\_\_\_\_  
 Mail-Box and Bldg/Room Location: \_\_\_\_\_ Results Format Preferred (circle): PAPER DISK E-MAIL

**If more than one search is submitted, please prioritize searches in order of need.**

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

\*\*\*\*\*

## STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: _____	NA Sequence (#) _____	STN _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>4/8</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____

**THIS PAGE BLANK (USPTO)**

GenCore version 5.1.4\_p5.4578  
Copyright (c) 1993 - 2003 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: April 4, 2003, 23:47:29 ; Search time 83 Seconds  
(without alignments)  
6384.788 Million cell updates/sec

Title: US-09-847-081B-1

Perfect score: 1728

Sequence: 1 agaacaccagaagaacaac.....tcatcaaacctcaagtggag 1728

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 441362 seqs, 15338381 residues

Total number of hits satisfying chosen parameters: 882724

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

- 1: /cgn2\_6/ptodata/1/ina/5A\_COMB.seq:\*
- 2: /cgn2\_6/ptodata/1/ina/5B\_COMB.seq:\*
- 3: /cgn2\_6/ptodata/1/ina/6A\_COMB.seq:\*
- 4: /cgn2\_6/ptodata/1/ina/6B\_COMB.seq:\*
- 5: /cgn2\_6/ptodata/1/ina/PTUS\_COMB.seq:\*
- 6: /cgn2\_6/ptodata/1/ina/backfiles.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Match	Length	DB	ID	Description
1	868	50.2	1826	1	US-08-579-667-5	Sequence 5, Appli
2	858.6	49.7	1795	1	US-08-579-667-1	Sequence 1, Appli
3	853.4	49.4	1814	1	US-08-579-667-7	Sequence 7, Appli
4	842	48.7	1646	1	US-07-995-950-2	Sequence 2, Appli
5	842	48.7	1646	1	US-08-300-582-2	Sequence 2, Appli
6	811.2	46.9	1239	4	US-09-180-342-2	Sequence 2, Appli
7	811.2	46.9	1316	1	US-08-579-667-3	Sequence 3, Appli
8	415.2	24.0	1239	4	US-09-180-342-1	Sequence 1, Appli
9	172	10.0	749	1	US-08-579-667-9	Sequence 9, Appli
10	54	3.1	7218	1	US-08-232-463-14	Sequence 14, Appli
11	52.4	3.0	114	2	US-08-260-546-10	Sequence 10, Appli
12	52.4	3.0	114	4	US-09-436-068A-12	Sequence 12, Appli
13	37.2	2.2	891	1	US-07-783-705A-11	Sequence 11, Appli
14	37.2	2.2	1232	4	US-08-908-758-1	Sequence 1, Appli
15	37.2	2.2	6918	1	US-07-783-705A-13	Sequence 13, Appli
16	36	2.1	1959	3	US-09-166-460-1	Sequence 1, Appli
17	36	2.1	1959	4	US-09-361-718-1	Sequence 1, Appli
18	36	2.1	1959	4	US-09-398-395A-27	Sequence 27, Appli
19	35.4	2.0	2468	1	US-08-468-036-19	Sequence 19, Appli
20	35.4	2.0	2468	2	US-08-376-843-19	Sequence 19, Appli
21	35.4	2.0	2469	1	US-08-447-500-3	Sequence 3, Appli
22	35.4	2.0	2469	1	US-08-454-097-3	Sequence 3, Appli
23	35.4	2.0	2469	1	US-08-453-866-3	Sequence 3, Appli
24	35.4	2.0	2469	3	US-08-185-359-3	Sequence 3, Appli
25	34.8	2.0	654	4	US-09-288-143-37	Sequence 37, Appli
26	34	2.0	1056	4	US-09-134-001C-2655	Sequence 2655, Ap
27	33.4	1.9	25002	4	US-08-961-527-48	Sequence 48, Appli

28	33.2	1.9	18475	4	US-08-961-527-38	Sequence 38, Appli
29	33	1.9	6265	4	US-09-129-112-3	Sequence 3, Appli
30	33	1.9	98844	4	US-09-791-211-10	Sequence 10, Appli
31	32.8	1.9	1923	4	US-09-149-476-192	Sequence 192, App
32	32.8	1.9	1988	4	US-09-643-597-173	Sequence 173, App
33	32.8	1.9	12734	4	US-09-344-456-1	Sequence 1, Appli
34	32.8	1.9	14078	4	US-09-433-262-1	Sequence 1, Appli
35	32.8	1.9	14078	4	US-09-702-330-1	Sequence 1, Appli
36	32.8	1.9	14578	3	US-08-859-694-1	Sequence 1, Appli
37	32.6	1.9	363	2	US-08-967-101-30	Sequence 30, Appli
38	32.6	1.9	363	2	US-08-592-541-30	Sequence 30, Appli
39	32.6	1.9	363	3	US-09-124-698-30	Sequence 30, Appli
40	32.6	1.9	363	4	US-09-127-480-30	Sequence 30, Appli
41	32.6	1.9	363	4	US-08-496-841C-30	Sequence 30, Appli
42	32.6	1.9	363	4	US-09-124-523-30	Sequence 30, Appli
43	32.6	1.9	1449	4	US-08-858-207A-54	Sequence 54, Appli
44	32.6	1.9	5910	4	US-08-961-527-165	Sequence 165, App
45	32.6	1.9	28882	4	US-08-961-527-140	Sequence 140, App

ALIGNMENTS

RESULT 1

US-08-579-667-5

Sequence 5, Application US/08579667

Patent No. 5705624

GENERAL INFORMATION:

APPLICANT: Fitzmaurice, Wayne P.

APPLICANT: Hellmann, Gary M.

APPLICANT: Grill, Laurence K.

APPLICANT: Kumagai, Monto H.

APPLICANT: Della-Cioppa, Guy R.

TITLE OF INVENTION: DNA SEQUENCES ENCODING ENZYMES USEFUL IN

TITLE OF INVENTION: PHYTOENE BIOSYNTHESIS

NUMBER OF SEQUENCES: 19

CORRESPONDENCE ADDRESS:

ADDRESSEE: Virginia C. Bennett

STREET: 1211 East Morehead Street, PO Drawer 34009

CITY: Charlotte

STATE: NO. 5705624th Carolina

COUNTRY: USA

ZIP: 28234

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

OPERATING SYSTEM: IBM PC compatible

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/579,667

FILING DATE:

CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:

NAME: Bennett, Virginia C.

REGISTRATION NUMBER: 37,092

REFERENCE/DOCKET NUMBER: 627-196

TELECOMMUNICATION INFORMATION:

TELEPHONE: 919-420-2200

TELEFAX: 919-881-3175

INFORMATION FOR SEQ ID NO: 5:

SEQUENCE CHARACTERISTICS:

LENGTH: 1826 base pairs

TYPE: nucleic acid

STRANDEDNESS: single

TOPOLOGY: linear

MOLECULE TYPE: CDNA

FEATURE:

NAME/KEY: CDS

LOCATION: 367..1596

US-08-579-667-5

Query Match 50.2%; Score 868; DB 1; Length 1826;  
Best Local Similarity 77.2%; Pred. No. 3.8e-239;

Matches 1187; Conservative 0; Mismatches 255; Indels 96; Gaps 7;

QY 109 TTGAATAGTAGTACTAGTATCTAGATATCTACAGATATGTTTGTATATAATAG 168  
 Db 221 TAGACTAGTGGAACTACTAGAGATATTTTATTTTATTTTATTTTATTTTAA 280  
 QY 169 GCTAGAGTGAAGATTAACATAA-----GGAAGACAAAACCTTGGATTTT 220  
 Db 281 GCAAGAGAGGAGGAAACAGAAACAGAAAGTAAACAAAACCTTGGATTTT 340  
 QY 221 AGACACCGAGGTTCTTGTTCATGAGCATGCTGTTGTGTTGGTCTTCTC 280  
 Db 341 AGACACCGAGGTTCTTGTTCATGAGCATGCTGTTGTGTTGGTCTTCTC 397  
 QY 281 CCACCTCCGAGTCTCGAATGGACAGATTTGATTCAGTCCGAGAAACCGCG 340  
 Db 398 ---CTTGTAGAGTCTCAAAATGGACAGATTTGATTCAGTAAAGGAGGAAACCGG 454  
 QY 341 TCTTTGATCATCCAGTCTTCTAGTGAAGTATTTGATTTGATTTGATTTG 400  
 Db 455 TTTTGTACTGCTCAGG-----CATAGAAATTTGTGTCATAGAGAAATCA 502  
 QY 401 AGAAGGTGGAGACAAAGGTGAATTTTGGCTTTAATTTGATTCAGATATTCAT 460  
 Db 503 AAAGAGGTGAACAAAGGTGAATTTTGG-----533  
 QY 461 GCTTGGGTGATCAAGAACTGAAAGGACACATTTCTCTGACAGTCCAGTTGGTG 520  
 Db 534 -----TTCTGAGGCTCTCGATGAGG 556  
 QY 521 CTACCCAGCTGAGAAAT---GACTGTCTATCAGAGAAAGGTGATGTTGAT 577  
 Db 557 CTACACCAACGGGAAATGGCAATGACATCAGAACAAAGTTATATGTTGAT 616  
 QY 578 TAAAGCAGGCGAGCTTGTAGTGAAGGCGAGTGAATCCAGATTTAGATTAAGTGAAC 637  
 Db 617 TGAACCAAGCAGCTTTAGTGAAGGCGAGTGAATCTAGTGAATTAAGTGAAC 676  
 QY 638 CGGATATTTGTTTCCAGGGAATTTGGCTTTGATGAGTGAATGATGTTGGCG 697  
 Db 677 CGGATATTTGTTTCCAGGGAATTTGGCTTTGATGAGTGAATGATGTTGGCG 736  
 QY 698 AAGTATGTCAGATTAAGCAAGACATTTTCTTGAAGCAACCTAATGACCCAGAGA 757  
 Db 737 AAGTATGTCAGATTAAGCAAGACATTTTCTTGAAGCAACCTAATGACCCAGAGA 796  
 QY 758 GAAAGAGCATCTGCGCAATATATGTTGTGTCAGAGAGAACGAGATGTTGATG 817  
 Db 797 GAAAGAGCATCTGCGCAATATATGTTGTGTCAGAGAGAACGATGTTGATG 856  
 QY 818 GCCCTAATGCATCCACATTAATCCGAGCTTGAATAGTGGAGACAGCTGAGAG 877  
 Db 857 GCCGATATGCATACATATATCTCCACAGCTTGAATAGTGGAGAGACGCTGAGAG 916  
 QY 878 ATATTTCAAGTGGGCGCATTTGATATGCTGCTTATCCGATACCTGCTCCA 937  
 Db 917 ATGTTTCAAGTGGGCGCATTTGATATGCTGCTTATCCGATACCTGCTCCA 976  
 QY 938 GATTTCTGTTGATTTTCAAGCATTGATGATGATGATGATGATGATGATGAT 997  
 Db 977 AGTTCCAGTTGATTTTCAAGCATTGATGATGATGATGATGATGATGATGAT 1036  
 QY 998 GGAATATCAGATCAAACTTTCATGATGATGATGATGATGATGATGATGAT 1057  
 Db 1037 GGAATATCAGATCAAACTTTCATGATGATGATGATGATGATGATGATGAT 1096  
 QY 1058 CTGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1117  
 Db 1097 CGGTTGGTGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1156  
 QY 1118 AGAGTATATATATGCTGCTTGGCTTGAAGGCTGCAATCACTAATCACTATCA 1177  
 Db 1157 AGAGTATATATATGCTGCTTGGCTTGAAGGCTGCAATCACTAATCACTATCA 1216

QY 1178 GAGATGAGAGAGATGCCAGAGAGAGAGATATATCTGCTCAAGATGATAGCAC 1237  
 Db 1217 GAGATGAGAGAGATGCCAGAGAGAGAGATATATCTGCTCAAGATGATAGCAC 1276  
 QY 1238 AGCAGGCTCTCCGACGAGATATTTGCTGGAAGAGTACTGATAGTGAAGACT 1297  
 Db 1277 AGCAGGCTCTCCGACGAGATATTTGCTGGAAGAGTACTGATAGTGAAGACT 1336  
 QY 1298 TTTATGAGAGAAATTCAGAGGCGAGAAATTTCTTGTGATGATGAGAGAGGTC 1357  
 Db 1337 TTTATGAGAGAAATTCAGAGGCGAGAAATTTCTTGTGATGATGAGAGAGGTC 1396  
 QY 1358 CAGACTGAGCTGCTAGTATGAGTGGCTGTGTTAAACAGGCGCTGTGTATGCAAGA 1417  
 Db 1397 CAGACTGAGCTGCTAGTATGAGTGGCTGTGTTAAACAGGCGCTGTGTATGCAAGA 1456  
 QY 1418 TATGAGAGATTTGAACCCAGACTACACAACTTCCACAGAGGCTTATGATGA 1477  
 Db 1457 TATGAGAGATTTGAACCCAGACTACACAACTTCCACAGAGGCTTATGATGA 1516  
 QY 1478 AGCCAAAGAGCTTCCACCTGCTTATGCAAAATCTTGTGCGCCCTAAT 1537  
 Db 1517 AGCCAAAGAGCTTCCACCTGCTTATGCAAAATCTTGTGCGCCCTAAT 1576  
 QY 1538 GAAC-TCTCTCTCAGTGAAGAGACATGATGATGATGATGATGATGATGATGAT 1596  
 Db 1577 GAAC-TCTCTCTCAGTGAAGAGACATGATGATGATGATGATGATGATGATGAT 1636  
 QY 1597 ACTAAGAACTCAGCTTCTTGAATGAGATCTTT 1634  
 Db 1637 TATATTTATTTATTTACTGTTAAAGCAAAATTT 1674

# RESULT 2

US-08-579-667-1

Sequence 1, Application US/08579667

Patent No. 5705624

GENERAL INFORMATION:

APPLICANT: Filzmaurice, Wayne P.

APPLICANT: Grill, Laurence K.

APPLICANT: Kumagai, Monto H.

APPLICANT: Della-Cioppa, Guy R.

TITLE OF INVENTION: DNA SEQUENCES ENCODING ENZYMES USEFUL IN

NUMBER OF SEQUENCES: 19

CORRESPONDENCE ADDRESS:

ADDRESS: Virginia C. Bennett

STREET: 1211 East Morehead Street, PO Drawer 34009

CITY: Charlotte

STATE: No. 5705624th Carolina

COUNTRY: USA

ZIP: 28234

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/579,667

FILING DATE:

CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:

NAME: Bennett, Virginia C.

REGISTRATION NUMBER: 37,092

REFERENCE/DOCKET NUMBER: 627-196

TELECOMMUNICATION INFORMATION:

TELEPHONE: 919-420-2200

TELEFAX: 919-881-3175

INFORMATION FOR SEQ ID NO: 1:

SEQUENCE CHARACTERISTICS:

LENGTH: 1795 base pairs